Safety Belts and Rural Communities - 2003 Report

Rural Americans face greater risk of being injured or killed in a traffic crash than those who live and commute in urban areas. The facts are: only 21 percent of the population live in rural areas in this country, yet 39.5 percent of the total vehicle miles traveled are on rural roads. In 2002, rural traffic crashes accounted for 60 percent of the total fatalities on our Nation's highways.[1] A combination of known factors is responsible, including some that are unique to rural areas. For instance, rural crashes often occur in isolated areas, causing a delay in the time of discovery and in the delivery of emergency services to the victim. Other prominent factors contributing to the high rural crash and fatality rates include: alcohol involvement, high-speed crashes, low safety belt use, vehicle rollovers, and ejections. Although safety belt use in rural areas increased to 73 percent in 2002, it remains slightly lower than the national rate (about 75 percent).[2] The lower rate may be attributable to the lower use of safety belts among pickup truck occupants – 54 percent rural areas compared with 69 percent in urban and suburban areas.[3]

Along with pickup truck occupants, another high-risk group is 15-20 year olds. Motor vehicle crashes are the leading cause of death for 15 to 20 year olds. In 2002, 8,278 15- to 20-year-old drivers were involved in fatal crashes, 3,827 were killed, and an additional 324,000 were injured.[4] More than twice as many vehicle occupants in this age group died in rural area crashes compared to urban crashes. Sixty-two percent of these young people who died in rural area crashes were unrestrained compared to 55 percent in urban areas and 54 percent of the total for all age groups.[5] To achieve further gains in rural safety belt use, campaigns will need to focus more directly on rural communities and among these high-risk groups within those communities.

Rural Communities Are At Risk

- In 2002, 25,849 people died in motor vehicle crashes in rural areas.[6]
- The motor vehicle fatality rate in rural areas is more than double the fatality rate in urban areas. In 2002, the fatality rate in rural areas was 2.3 fatalities per 100 million vehicle miles traveled (VMT) vs. 1.0 fatality per 100 million VMT in urban areas.[7]
- In 2002, more fatal occupants were ejected from the vehicle in fatal rural crashes compared to fatal urban crashes.[8]

Percent Fatal Passenger Vehicle Occupant Ejections in 2002 (Rural vs. Urban Fatal Crashes)		
Type of Vehicle	Rural Crashes	Urban Crashes
All Passenger Vehicles	31%	22%
Sport Utility Vehicles (SUVs)	48%	44%
Pickup Trucks	41%	33%

Of those rural fatalities involving ejections, 88 percent of the SUV occupants were unbelted and 93 percent of the pickup truck occupants were unbelted.[9]

- Over 70 percent of the fatal crashes on roadways with posted speeds of 55 MPH or higher occur in rural areas, where as approximately 70 percent of all fatal crashes on roadways with speed limits of 40 MPH or less are in urban areas.[10]
- In 2002 fatal single-vehicle crashes, over half (57 percent or 7,677), of the vehicles ran off the road in rural areas versus (38 percent or 3,299) in urban areas.[11]

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Light Truck Occupants in Rural Communities — Special Challenges

- Fatal crashes in 2002 involved almost twice as many pickup trucks (7,544) in rural areas versus (3,390) in urban areas.[12]
- Occupant fatalities in pickup trucks, SUVs and vans accounted for 62 percent of the increase in total occupant fatalities in 2002.[13]
- Safety belt use in pickup trucks is lower than in any other type of passenger vehicle on the road. The latest national survey in 2003* reported 69 percent of pickup truck occupants belted, compared to 81 percent for passenger car occupants and 83 percent for vans and sport utility vehicles.[14]
- Safety belt use for all age groups ranges from 6 to 15 percentage points lower in pickup trucks than in other passenger vehicles.[15]
- Safety belt use in pickup trucks is considerably lower in rural areas (54 percent) compared to urban and suburban areas (69 percent).* By comparison, safety belt use in other vehicles is much higher and more consistent in all three areas: for SUVs and vans: 72, 79, and 78 percent respectively for urban, suburban, and rural areas; and for passenger cars: 72, 78, and 79 percent.[16]
- NHTSA focus group studies of young male pickup truck drivers in rural areas indicated there are numerous obstacles to overcome in convincing these drivers to buckle up. Such obstacles include: the false belief that being unbelted in a crash is actually safer than being belted; social norms that discourage belt use; a fatalistic view of life; feeling safer in their truck versus a passenger vehicle; and the belief that wearing a safety belt is a personal choice and should not be mandated by law.[17]
- Rollover crashes occur most often in SUVs, followed by pickup trucks, and are most prevalent in rural areas.

2002 Fatal Rollover Crashes		
Type of Vehicle	Percent Rural	Percent Urban
SUV	64%	55%
Pickup Truck	48%	34%
Van	37%	25%
Passenger Car	28%	16%

Of the rural fatalities that experienced rollovers, 79 percent of the pickup truck occupants were unbelted and 68 percent of the SUV occupants were unbelted.[18]

- In 2002, there were 91 fatalities as a result of passengers riding in the cargo areas of pickup trucks (down from 130 in 2001). Of these fatalities, 70 occupants (77 percent) were on rural roadways.[19]

Safety Belt Use Saves Lives And Dollars

- Safety belts have saved 14,164 American lives in 2002.[20] Yet, 59 percent of the passenger vehicle occupants killed in traffic crashes, were unrestrained.[21]
- Research shows that lap/shoulder belts, when used properly, reduce the risk of fatal injury to front-seat passenger car occupants by 45 percent and the risk of moderate to critical injury by 50 percent. For light truck occupants, the effectiveness increases to 60 and 65 percent, respectively, and to 80 percent in rollover crashes.[22]
- Safety belts should always be worn, even when riding in vehicles equipped with air bags. Air bags are designed to work with safety belts, not by themselves. Air bags provide about an 11 percent reduction in fatality risk for the belted driver, and 14 percent for the unbelted driver in potentially fatal crashes.[23]

* The most recent available safety belt data for rural, urban, and suburban areas is 2002; the most recent safety belt data based on vehicle type is 2003. (National Center for Statistical Analysis, National Highway Traffic Safety Administration).

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- Safety belt use saves society an estimated $50 billion annually in medical care, lost productivity, and other injury-related costs.[24]
- Conversely, safety belt non-use results in significant economic costs to society. The needless deaths and injuries from safety belt non-use result in an estimated $26 billion in economic costs to society annually.[25]

Child Safety Seats/Booster Seats Help Protect Children

- In 2002, 459 children under the age of five died in crashes on our Nation's highways as passengers in motor vehicles. An estimated 185 (40 percent) of these children were totally unrestrained.[26] More than twice as many children ages 0-4 died on rural roadways as compared to urban roadways, and almost half of those killed in rural areas were unrestrained. Over twice as many child fatalities ages 4-7 were on rural roadways and two and a half times more child fatalities age 8-15 compared to urban roadways.[27]
- Research shows that child safety seats reduce fatal injury for infants (less than 1 year old) by 71 percent and toddlers (1-4 years old) by 54 percent in passenger cars. For infants and toddlers in light trucks, the corresponding reductions are 58 and 59 percent, respectively.[28]
- Adult safety belt use is an important predictor of restraint use among children. Observations conducted in 2002 showed that young children were restrained 92 percent of the time when the driver was belted and only 72 percent of the time when the driver was not buckled up.[29]
- Children 12 years of age and younger should be appropriately restrained in the back seat whenever possible, especially in vehicles equipped with passenger air bags. Because of their small stature, children are at high risk for sustaining fatal head and spinal cord injury from a deploying air bag in a crash. Owners of pickup trucks and cars with no rear seat or small rear seats that will not properly accommodate child safety seats should have an on/off switch installed for the passenger air bag. The switch should always be turned to the "OFF" position when a child age 12 or younger is transported in the front seat. If the vehicle has a passenger air bag but is not equipped with an air bag on-off switch, owners should contact NHTSA at 1-888-DASH-2-DOT and ask for a brochure *Air Bags and On/Off Switches*, and application for getting a switch installed.[30]
- Children (and adults) should not be permitted to ride in the cargo areas of pickup trucks under any circumstances.

Stronger Safety Belt Laws Can Make A Difference

- Safety belt use laws vary from State to State. As of the end of 2003, 20 States, the District of Columbia, and Puerto Rico now have primary laws, 29 States have secondary laws, and New Hampshire has no adult law. A primary safety belt law allows a law enforcement officer to issue a citation solely when the officer simply observes an unbelted driver or passenger. A secondary law means that a citation for not wearing a safety belt can only be written after the officer stops the vehicle or cites the offender for another infraction. Other major variances in the laws include: amount of fines, seating positions covered, and vehicle exemptions.
- Primary safety belt laws are much more effective in increasing safety belt use, because people are more likely to buckle up when there is the perceived risk of receiving a citation for not doing so. In 2003, the average safety belt use rate in States with primary enforcement laws was eight percentage points higher than in States without primary enforcement laws – 83 versus 75 respectively.[31] Among pickup trucks the rate was 71 percent versus 55 percent respectively (based on 2002 data).
- Laws making it illegal for children (up to 18 years old) to ride in the cargo area of pickup trucks, vary from State to State as well. Some States have laws without exemptions; other States include exemptions such as, when all seats are occupied, age specifications, vehicle speed, road type, special events or circumstances, etc.

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Law Enforcement Can Make a Difference

- Occupant Protection Selective Traffic Enforcement Programs (sTEPs) are periods of highly visible safety belt enforcement campaigns combined with extensive media support. These programs are a proven method to change motorists' safety belt use behavior quickly. Successful Occupant Protection sTEPs have been documented in Canada, Europe, and the United States.[32, 33, 34, 35]
- While sTEPs are a successful method to increase safety belt use, rural America faces challenges in implemsenting this approach, especially rural States with secondary safety belt laws. Limited resources, inadequate man power, and lack of community support for strong enforcement leads to decreased participation by rural communities in coordinated national, State, and local safety belt enforcement campaigns.
- Enforcement alone has its limitations for increasing safety belt use. However, enforcement of safety belt laws, combined with intensive media support, is effective in increasing safety belt use because the perceived risk of receiving a safety belt citation is increased. Research shows that people will buckle up if they believe the police are enforcing the law.

Partnering to Reach Rural Areas

- When implementing safety belt campaigns in rural areas, it is important to tie into existing infrastructures serving rural areas, especially those at the community level. Examples of organizations include, but are not limited to, 4-H, The National Children's Center for Rural and Agricultural Health and Safety, Farm Safety 4 Just Kids, the National Rural Health Association, Bureau of Indian Affairs (BIA), Indian Health Service (IHS), and the Office of Rural Health Policy (Department of Health and Human Services). Local businesses, and media and civic organizations are also valuable sources for additional support.
- Messaging emphasis should be based on community norms and acceptance, and on what the high-risk group (i.e. pickup truck occupants due to the low safety belt use observed among these occupants) will likely respond to. Examples of such initiatives include:
  - *Buckle Up Santa Rosa* by Think First of Northwest Florida and *Pick Up the Buckle*, by Avera Rural Health Institute in Sioux Falls, South Dakota – both NHTSA rural pickup truck safety belt demonstration projects;
  - *Kids Aren't Cargo* – a NHTSA national campaign initiated by a concerned mother after several crashes involving children in the back of pickups occurred in and around her community; and
  - *Buckle Up or Eat Glass* – an education program developed by Farm Safety 4 JusKids that targets rural teen pickup truck drivers.

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7 2002 Annual Report File (ARF)* Fatality Analysis Reporting System (FARS), National Center for Statistics and Analysis (NCSA), National Highway Traffic Safety Administration (NHTSA), and Federal Highway Administration (FHWA).

8 IBID, Passenger Vehicle Occupant Ejections.

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